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| Departemen_Perhubungan.wmf | FORM SKENARIO LABORATORIUM/SIMULATOR/ WORKSHOP | Nomor Dokumen : FM.USW.01.02a |
| Tgl. Ditetapkan : 02 November 2015 |
| Revisi No : 02 |
| Tgl. Diberlakukan : 09 Januari 2017 |
| Made By : | Reviewer : |
| PIP SEMARANG | AMAD NARTO, M.Pd., M.Mar.E | ADI OKTAVIANTO, S.T, M.M |
|  | Mengetahui |
|  | Kanit Laboratorium, Simulator & Workshop | Kepala Bagian Adminitrasi Akademik &Ketarunaan |
|  |  |  |
|  | YUSTINA SAPAN, S.ST, MM | Capt. BHARTO ARI RAHARJO |

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| Type Facilities :* Laboratorium
* Simulator
* Other
 | Name Laboratorium/ Simulator/ Other :METI |

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| **Criteria on STCW Code** | Explanation and understanding of design features and operating mechanisms are appropriate  |
| **Function & Level** | Marine Engineering at The Operational Level (ATT : III/IV)\* |
| **Program** | **Operation Main Engine Arrival From Ocean Going To Finished With Engine** |
| **Referensi STCW** |  STCW/CONF. 2/34. *Table A-III/2* |
| **aim of Exercise** | To provide adequate minimum standard for chief engineer officers and second engineer officers on ships powered by main propulsion machinery of 3,000 kW propulsion power or more |
| **Objective** | Upon completion of this training the student should be able to:1. Respond to Master order to preparing main engine for arrival
2. Open the guidance booklets and identify appropriate list
3. Preparing prior to Manoeuvre Arrival of Main Engine Diesel
4. Operation ME From " Ocean Going " condition for Arrival or Manoeuvre Condition
5. Safely report to CE
 |
| **Initial condition**(METI ERS run by Mode 7) | 1. Ship is at sea
2. TG and SG Parallel Run.
3. DG No.1 and DG No. 2 Stop in Stand By Run
4. Main Air Compressor running in auto to fill Main Air Reservoir Press. 2.45 ~ 2.94 Mpa.
5. Exhaust Gas Economiser running to produce 0.55 ~ 0.70 Mpa steam press.

Aux Boiler in auto mode |
| **Briefing** | 5 minutes |
| **Exercise Duration** | 30 minutes |
| **Debriefing** | 5 minutes |

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| **Measurable Criteria** (Student action to be measured) |  |  |  |  |

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| **No** | **Time frame (minutes)** | **Student action** | **Check** | **Mark** | **Actual time** | **Remark** |
| Y | N |
|  | 5 | Briefing\* |  |  |  |  |  |
| 1 | 4 | Respond to CE order to preparing for arrival from ocean going condition |  |  |  |  |  |
| 2 | 3 | Open the operating manuals and identify appropriate list |  |  |  |  |  |
| 3 | 30 | Preparing prior to operation Main Diesel Engine for arrival.1. Respond Stand Telegraph Order from Wheel House by Press Control Room S/B Sub Telegraph Reply after Sub Telegraph Order by W/H
2. Preparing Diesel Generator
3. Start D/G No.1 and D/G No.2
4. D/G No.1 and D/G No.2, ACB Close
5. Confirm Para. Running

c. Preparing Aux. Boiler 1. Set Boiler Mode from Sea à Harbour
2. Change Exh. Gas Economizer from Superheated Steam line to Saturated Steam Line
3. Stop Boiler W. Circ. Pump

d. M/E F.O. Change Over H.F.O. To D.O, by:* + - 1. Confirm Main Engine Power around 50 ~ 70 % MCR.
			2. Stop M/E F.O. Heater and Temp. Cont. Mode Set Min.
			3. Confirm F.O. Temp. & Viscosity (123°C & 27 Mm2/Sec)
			4. Change Over "H.F.O." à "D.O."

e. Shaft Generator Stop1. Check Power Consumption Electric Generator System
2. Shift Load of S/G To T/G & D/G No.1 and D/G No.2
3. Confirm Load of SG equal “0” Open ACB
4. Stop Shaft Generator Clutch Mechanism.

f. Starting Air System1. Discharge Main Air Reservoir Drain
2. Confirm & Open M/E Start Air Root Valve
3. Confirm & Open Main Starting Valve

g. Stopping of F.W. Generator1. Stop M/E Jacket Cool. F.W heating by pass
2. Stop Distilled W. Pump
3. Stop Ejector Pump

h. Changing Of Sea Chest Suction1. Open Main Sea Chest High
2. Close Main Sea Chest Low

i. Reduce Of M/E Speed1. Change ME Control Position from W/HàC/R
2. Make sure Main Engine Revolution in Full Away Speed.
3. Confirm CR Sub Telegraph Reply for Manoeuvre by W/H Sub Telegraph Order.
4. F/E Order: Confirm C/R Sub Telegraph Reply F/E after W/H Sub Telegraph Order F/E

j. M/E Air Run blow off1. Open Indicator Valve
2. M/E Air Run

k. Turning of Main Engine1. Engage Turning Gear
2. Start Turning Motor

l. Stopping of Air System1. Close M/E Start Air Root Valve
2. Block Main Starting Valve
3. Discharge Scav. Manifold Drain
4. Stop Aux. Blower
5. Stop No.3 & No. 4 E/R Vent. Fan

m. Stopping of F.O. System1. Stop M/E F.O. Circ. Pump
2. Stop M/E F.O. Boost. Pump

n. Stopping of Cool. F.W. System by Stop Jacket Cool. F.W. Pumpo. Decrease Central Cool. Water Capacity1. Stop 1 Of 2 Working Central Cool. S.W. Pump
2. Stop 1 Of 2 Working Central Cool. F.W. Pump

p. Stopping of M/E Turning1. Stop Turning Motor
2. Close Indicator Valve

q. Stopping of L.O. System1. Stop L.O. Purifier
2. Stop Stern Tube L.O. Pump
3. Stop Main L.O. Pump

r. Generator System1. Check Power Consumption Elect. Generator System
2. Control Of Generator According To Electric Power Demand

s. Stopping Of T/G1. Shift Load of T/G to D/G.
2. Confirm Load of TG equal “0” Open ACB
3. Stop T/G
 |  |  |  |  |  |
| 4 | 3 | Safely report to CE that ME is FWE Condition. |  |  |  |  |  |
|  |  | Debriefing\* |  |  |  |  |  |

Preparation Tasks: Refer Diesel Engine manual and METI Engine Room Simulator check list to running ME.

\*Critical performance below must get record **“Yes”** mark will lead the final result to mark **FAIL**

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| **No** | **Critical Performance** | **Y** | **N** |
| 1 | Respond Stand Telegraph Order from Wheel House by Press Control Room S/B Sub Telegraph Reply after Sub Telegraph Order S/B by W/H |  |  |
| 2 | M/E F.O. Change over H.F.O. To D.O Check control mode and change from C/R to W/H |  |  |
| 3 | Shaft Generator Stop |  |  |
| 4 | Turbo Generator Stop |  |  |
| 5 | Total actual time duration to complete mission is 30 minutes or below |  |  |

**Time factor**

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| --- | --- | --- | --- |
| <30 minutes = 1 | 31 – 40 minutes = 0.9 | 41 – 50 minutes = 0.8 | >50 minutes = 0.5 |

**Total Time : ………………minutes Time Factor : …………….**

**Total Score : Total Mark X Total Factor = …………… x ……………. = …………….**

**Final Result : PASS / FAIL ( Passing Grade = 70 )**